

[illegible]

Page 1

Accept

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525

Setup Start

Stop

[REDACTED]

[illegible]**Cust Item ID:**[illegible]

Customer:

Reference:

Run Start

Abstract

Date: 11-08-18

Tooling:

Date:


Stop

1. The first group of respondents was composed of 100 randomly selected individuals from the general population of the United States. The second group was composed of 100 randomly selected individuals from the general population of the United States who were members of the National Aeronautics and Space Administration (NASA).

Date:

SPC (Y/N):

Date:

120	QC8- Inspect parts - second check	0.00	<i>S u l o s / 22</i>	<i>(46)</i>
		0.00		
QC	Memo			
Quality Control				

Work Order ID 72935

Thursday, August 18, 2011 10:47:29 AM

Page 2

Item ID: D3319-3

Accept

Revision ID:

Item Name: Wearplate

Start Date: 8/18/2011 Start Qty: 6.00

Required Date: 8/26/2011 Req'd Qty: 6.00

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



Small Fab

Small Fab

0.00

Memo

0.00

Small Fab

Deburr if necessary

N/A

140



Brake NC

NC BRAKE

0.00

Memo

0.00

Brake NC

Form using DT8326 & DT8261 as per Dwg D3319Rev: B

SP 11/09/23

(6)

150



QC

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

Quality Control

8/18/23

(6)

Work Order ID 72935

Thursday, August 18, 2011 10:47:29 AM



Page 3

Item ID: D3319-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Wearplate

Start Date: 8/18/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 8/26/2011 Req'd Qty: 6.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160



Large Fab

Large Fab

0.00

Memo

0.00

Weld hard surface using D3319-3T2 per QSI 004 and Dwg D3319 Rev: B

____ Qty Part Number Description Batch ____ A/R
N/A 7560 Hardcoat Rod M117964

X6 11-08-19 JBL/EZ

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

5 W08/30

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

5 W08/30



26


Work Order ID 72935


Thursday, August 18, 2011 10:47:29 AM

Page 5

Item ID: D3319-3 Accept  Setup Start 
Revision ID: Stop 
Item Name: Wearplate
Start Date: 8/18/2011 Start Qty: 6.00  Cust Item ID:
Required Date: 8/26/2011 Req'd Qty: 6.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220 	QC21- Final Inspection - Work Order Release	0.00							
QC Quality Control	Memo	0.00							

Handwritten: 11/8/31 
MP 11-08-3

Picklist Print

Thursday, August 18, 2011 10:47:25 AM

Page 1

Work Order ID: 72935



Parent Item: D3319-3



Parent Item Name: Wearplate


Start Date: 8/18/2011

Required Date: 8/26/2011

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP: A□05.05.12□New issue□KJ/JLM□
IPP Rev:B Now on Waterjet 06-10-03 JLM□

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M1010S18GA 		Purchased		No		100	sf	313.5000	3.2524	20.54147			

1010/1025 SHEET .048

Location

Loc Qty

Loc Code

MAT019

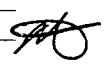
313.5

116268

21.5

117806

292

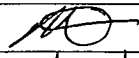

22.  11/08/22



DART AEROSPACE LTD		Work Order: 72935
Description: Wearplate		Part Number: D3319-3
Inspection Dwg: D3319	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

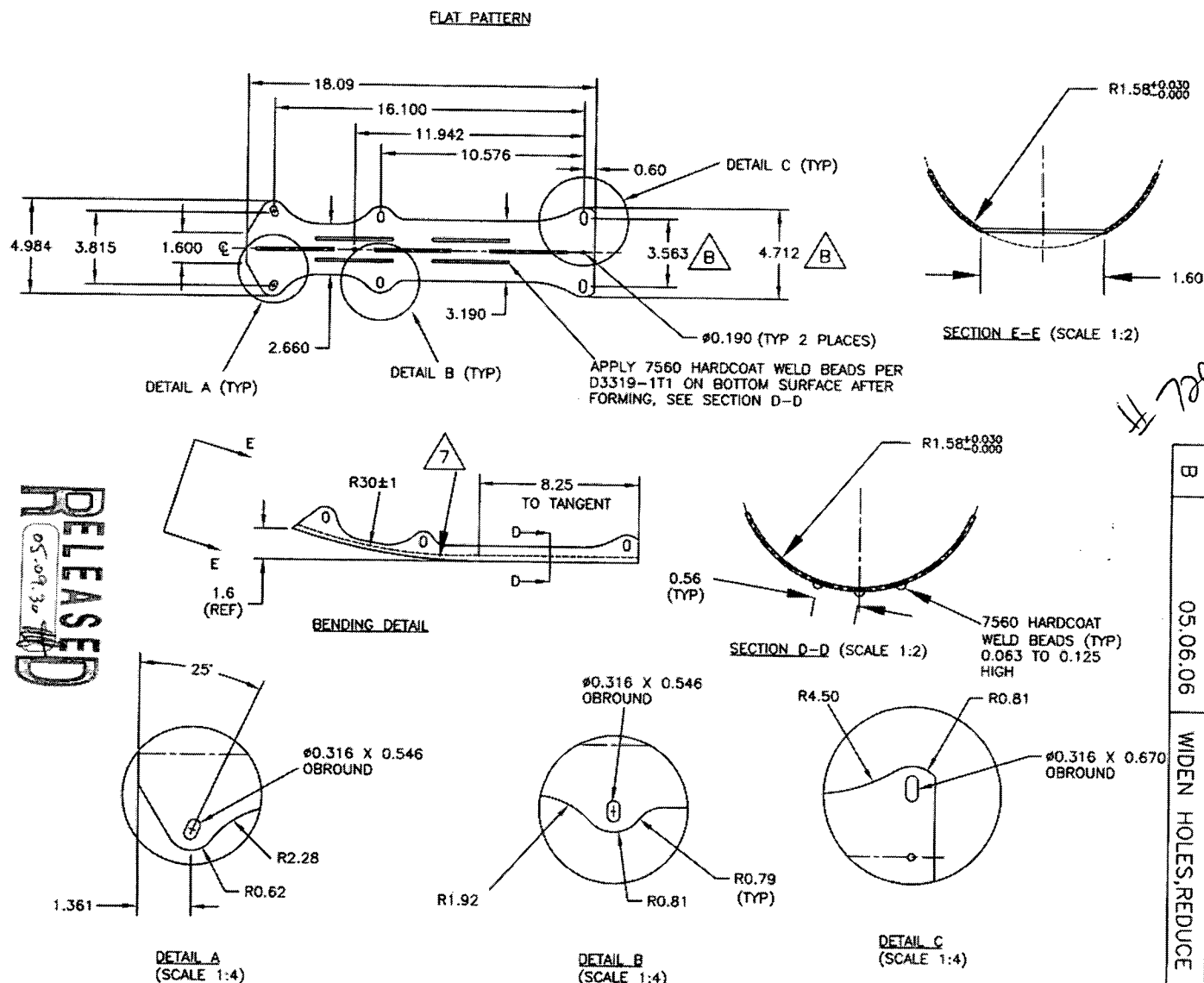
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
75.52	+/-0.030	75.52	—		RA04	Tape
74.420	+/-0.010	74.420	—		"	"
62.770	+/-0.010	62.77	—		"	
52.890	+/-0.010	52.89	—		"	
30.790	+/-0.010	30.79	—		"	
8.690	+/-0.010	8.69	—		"	
0.60	+/-0.030	.60	—		"	
2.690	+/-0.010	2.700	—		RA26	vern
2.940	+/-0.010	2.950	—		RA26	vern
3.527	+/-0.010	3.534	—		"	"
4.518	+/-0.010	4.524	—		"	"
Ø0.190	+0.005/-0.001	.189	—			
2.940	+/-0.010	2.950	—		RA26	vern
2.940	+/-0.010	2.950	—		"	"
2.690	+/-0.010	2.700	—		"	"
5.063	+/-0.010	5.065	—		"	"
6.163	+/-0.010	6.165	—		RA04	Tape
Ø0.316 x 0.607	+0.006/-0.001 x +/-0.010	.315 x .605	—		RA26	vern
0.048	+/-0.010	.046	—		RA26	vern

Measured by: 	Audited by: 	Prototype Approval:	N/A
Date: 11/08/22	Date: 11/08/22	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.07.18	New Issue	KJ/JLM 	



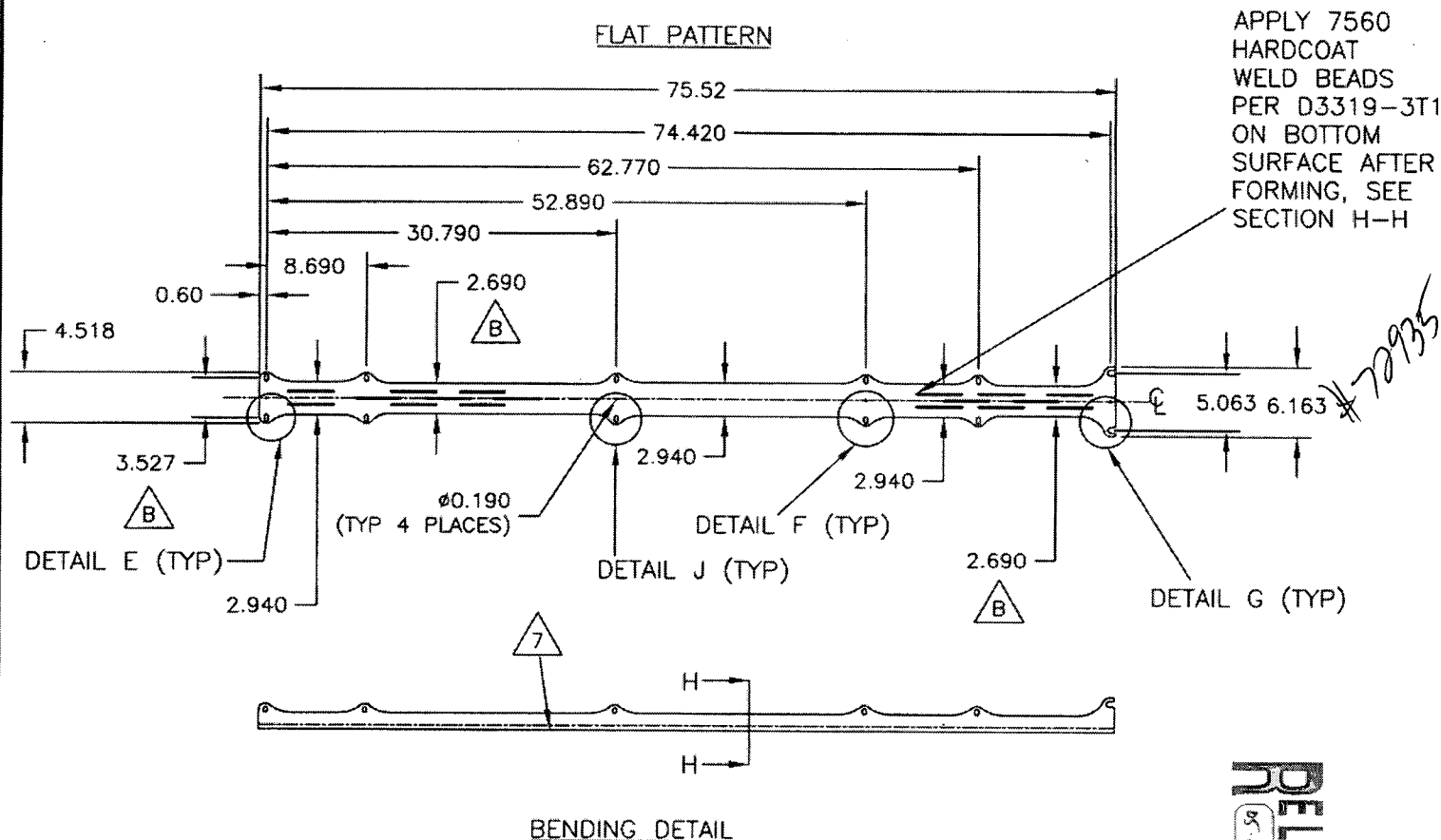
DESIGN	DRAWN BY	DART AEROSPACE LTD	
P41	P41	HAMKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
		D3319	SHEET 1 OF 5
DATE	TITLE	SCALE	
05.06.06	WEARPLATE	1:8	
A	04.09.24	NEW ISSUE	
B	05.06.06	WIDEN HOLES, REDUCE WIDTH -3/-5/-7	



D3319-1 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-1 B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18"

RELEASED
05-09-30



D3319-3 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-3 B/N BXXXXX,
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

RELEASED
05.07.30

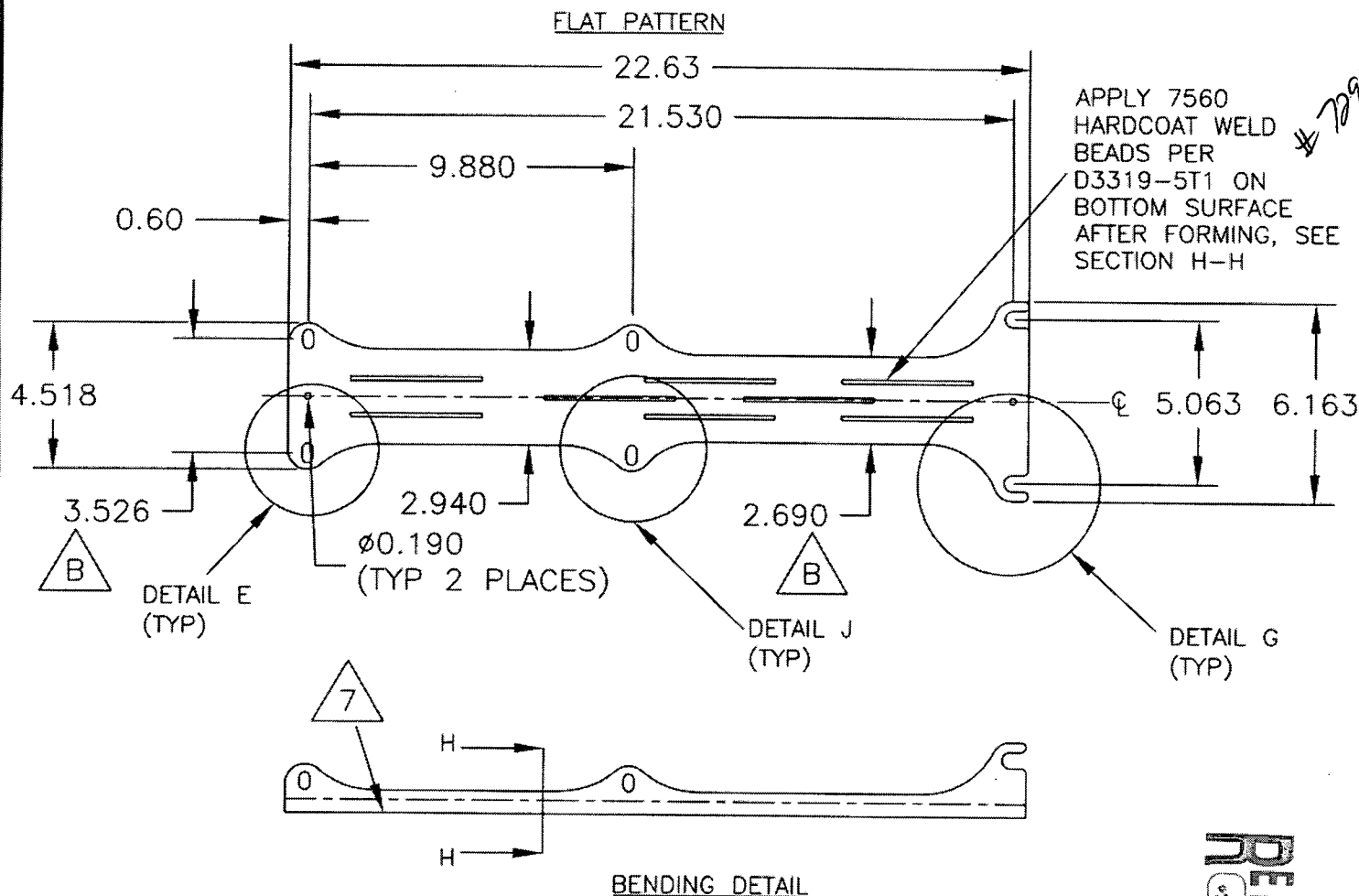


DESIGN	01	DRAWN BY	01	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	01	APPROVED	01	REV. B
DATE	05.06.06	TITLE	D3319	SHEET 2 OF 5
		WEARPLATE	SCALE	1:1.5



DESIGN	D31	DRAWN BY	D31	DART AEROSPACE LTD
CHECKED	[Signature]	APPROVED	[Signature]	HAWKESBURY, ONTARIO, CANADA
DATE	05.06.06	DRAWING NO.	D3319	REV. B
		TITLE	WEARPLATE	SHEET 3 OF 5
				SCALE 1:5



RELEASED
05-09-30-1101

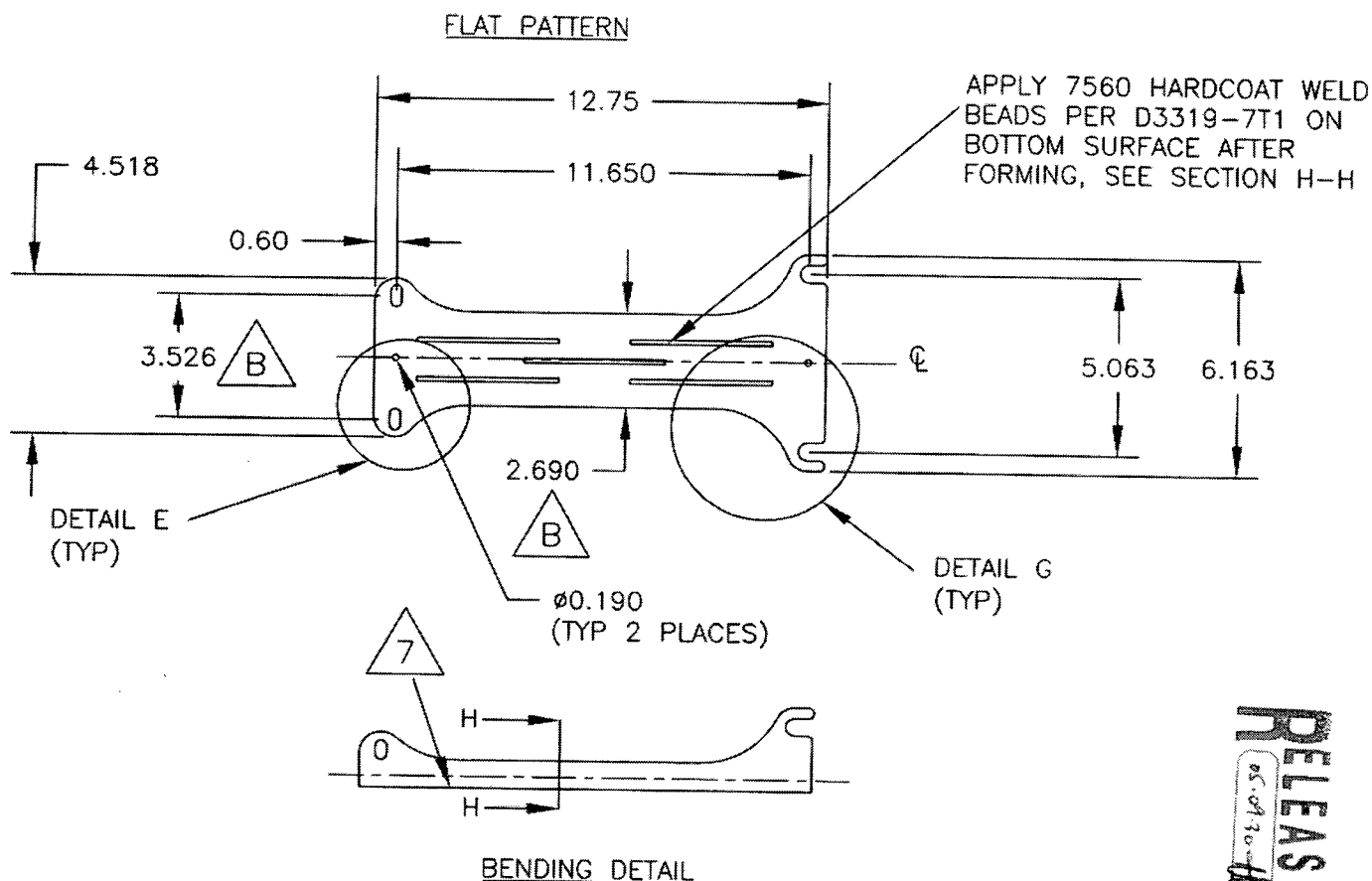


D3319-5 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-5 B/N BXXXXX,
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

DAFT

DESIGN PH	DRAWN BY GH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3319	REV. B SHEET 4 OF 5
DATE 05.06.06	TITLE WEARPLATE		SCALE 1:5



D3319-7 WEARPLATE

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,
38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) PART IS SYMMETRICAL ABOUT CENTERLINE
- 5) ALL DIMENSIONS IN INCHES
- 6) WELD PER DART QSI 004
- 7) IDENTIFY ON INSIDE SURFACE AS INDICATED USING FINE POINT PERMANENT INK MARKER:
"TCCA-PDA, DART AEROSPACE LTD., P/N D3319-7 B/N BXXXXX,
FOR PRODUCT ELIGIBILITY SEE PDA05-18"

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

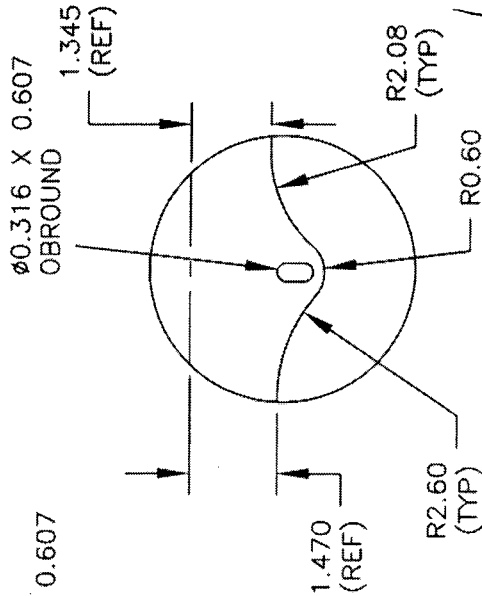
Copyright © 2004 by DART AEROSPACE LTD

RELEASED
05-09-30-44

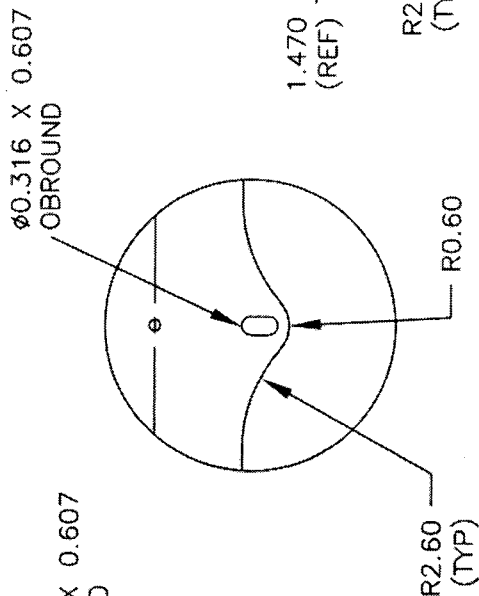


DESIGN <i>PH</i>	DRAWN BY <i>PH</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3319	REV. B SHEET 5 OF 5
DATE 05.06.06		TITLE WEARPLATE	SCALE 1:3

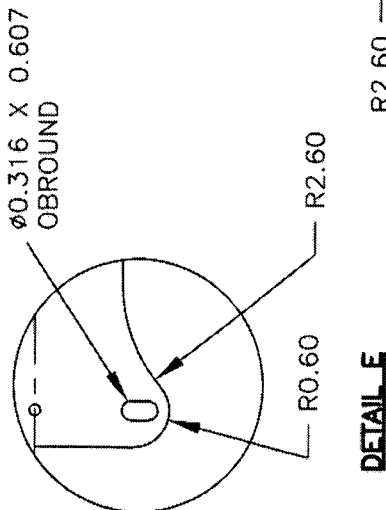
RELEASED
05.09.30



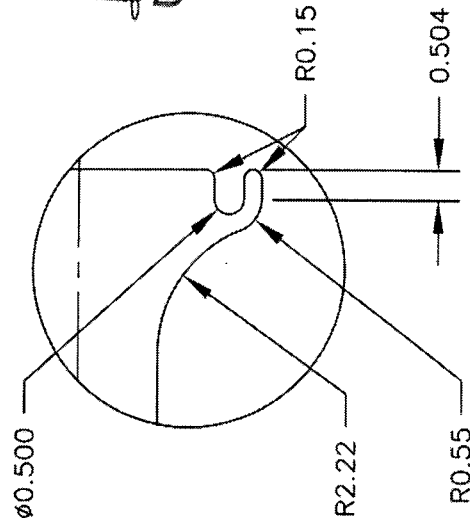
DETAIL J



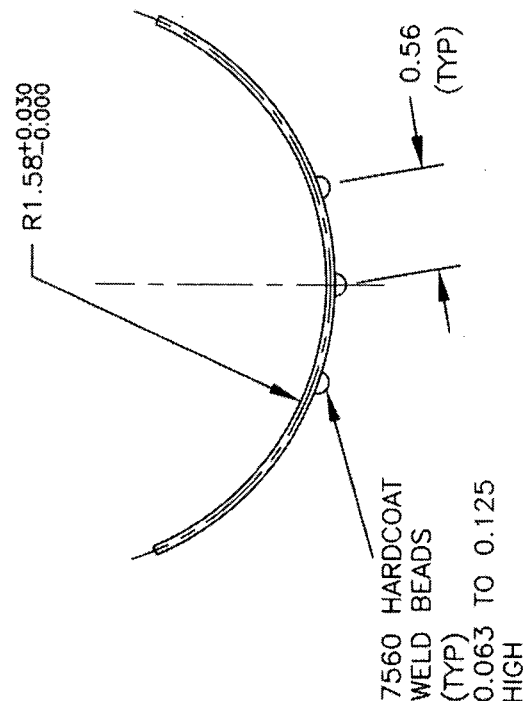
DETAIL F



DETAIL E



DETAIL G



SECTION H-H
(SCALE 1:1)

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.